

CLAIM AMENDMENTS

1-29. (Canceled)

30. (Previously presented) A method for stabilizing a vehicle combination of a trailer or semi-trailer and a towing vehicle having front wheels and rear wheels, said method comprising:

determining and evaluating at least one dynamic movement input variable;

implementing at least braking interventions for stabilizing a dynamic movement state of the vehicle combination for the towing vehicle when a rolling movement of the vehicle combination is detected upon evaluating the at least one dynamic movement input variable;

producing a yaw moment that counteracts the rolling movement of the vehicle combination by braking interventions applied to the front wheels of the towing vehicle; and

implementing braking interventions at the rear wheels of the towing vehicle that effect essentially constant braking at the rear wheels only when a predefined operating state of the vehicle combination is present.

31. (Previously presented) The method as claimed in Claim 30, wherein the predefined operating state of the vehicle combination is present if a rolling movement of the vehicle combination is detected when there is no braking by the driver and the vehicle combination is located on an underlying surface with a low coefficient of friction.

32. (Previously presented) The method as claimed in Claim 30, wherein the predefined operating state of the vehicle combination is present if a rolling movement of the vehicle combination is detected, when there is no braking by the driver, and when the braking interventions applied to the front wheels cause a risk of the front wheels locking.

33. (Previously presented) The method as claimed in Claim 30, wherein braking interventions are implemented at the rear wheels if a rolling movement of the vehicle combination is detected, when there is no braking by the driver, and when the vehicle combination is located on an underlying surface with a low coefficient of friction.

34. (Previously presented) The method as claimed in Claim 30, wherein braking interventions are implemented at the rear wheels if a rolling movement of the vehicle combination is detected, when there is no braking by the driver, and when the braking interventions applied to the front wheels lead to a risk of the front wheels locking.

35. (Previously presented) The method as claimed in Claim 30, wherein the predefined operating state of the vehicle combination is present if a rolling movement is detected during a driver initiated braking process, and when vehicle deceleration occurring as a result of the driver initiated braking process fulfills a predefined comparative criterion.

36. (Previously presented) The method as claimed in Claim 30, wherein the predefined operating state of the vehicle combination is present when a rolling movement is detected during a driver initiated braking process and vehicle deceleration, occurring as a result of the driver initiated braking process, fulfills a predefined comparative criterion.

37. (Currently amended) The method as claimed in Claim 36, wherein when the vehicle deceleration is below a predefined threshold value, a braking effect pressure produced at the rear wheels ~~as a result of~~ by the driver initiated braking process is at least partially reduced by the braking interventions at the rear wheels.

38. (Currently amended) The method as claimed in Claim 37, wherein the braking effect pressure is reduced to such an extent that the vehicle deceleration that fulfills the predefined comparative criterion ~~is at least maintained~~ remains substantially the same.

39. (Currently amended) The method as claimed in Claim 36, wherein if the vehicle deceleration is above a predefined threshold value, ~~the a~~ braking effect pressure produced at the rear wheels ~~is at least maintained by~~ remains substantially the same due to the braking interventions implemented at the rear wheels.

40. (Currently amended) The method as claimed in Claim 39, wherein ~~an~~ additional braking effect pressure is produced at the rear wheels is increased by braking interventions implemented at the rear wheels upon intervention of an anti-lock brake system at at least one of the front wheels.

41. (Currently amended) The method as claimed in Claim 40, wherein the additional braking effect pressure produced at the rear wheels is carried out in such a way that the value of the vehicle deceleration occurring as a result of the driver initiated braking process ~~is maintained~~ remains substantially the same.

42. (Previously presented) The method as claimed in Claim 30, wherein the braking interventions applied to the front wheels give rise to braking forces composed of basic force and dynamic force components.

43. (Previously presented) The method as claimed in claim 30, wherein:  
at least the towing vehicle is equipped with one of a hydraulic, an electrohydraulic, a pneumatic, and an electropneumatic brake system; and  
the braking interventions which are applied to the front wheels are such that a brake pressure which is composed of a basic pressure and dynamic pressure peaks is supplied to wheel brake cylinders assigned to the front wheels.

44. (Previously presented) The method as claimed in Claim 42, wherein a yaw moment which counteracts a rolling movement of the vehicle combination is produced by the dynamic force component.

45. (Previously presented) The method as claimed in Claim 42, wherein a value of the basic force component or pressure is determined as a function of a deviation in a yaw angle rate that results from the difference between the actual value for the yaw angle rate determined using a yaw angle rate sensor and a setpoint value for the yaw angle rate determined using a mathematical model.

46. (Previously presented) The method as claimed in Claim 42, wherein the value for the dynamic force component is determined as a function of a variable which describes a change over time of a deviation in the yaw angle rate.

47. (Previously presented) The method as claimed in Claim 43, wherein both the basic pressure and the dynamic pressure peaks decrease as the rolling movement decreases.

48. (Previously presented) The method as claimed in Claim 30, wherein: engine interventions are also carried out in addition to braking interventions; and

a moment which is output by the engine is set by way of the engine interventions in such a way that substantially no circumferential forces occur at driven wheels of the towing vehicle.

49. (Previously presented) The method as claimed in Claim 30, wherein: engine interventions are carried out in addition to braking interventions; and

torque which is output by the engine is set by the engine interventions in such a way that friction losses which occur in the drive train are compensated and driven wheels are given a neutral setting as far as the circumferential force is concerned.

50. (Previously presented) The method as claimed in Claim 30, wherein:  
after stabilizing braking interventions have been initiated, it is checked whether instability of the vehicle combination decreases;  
when the vehicle combination has returned to a stable state, no further stabilizing braking interventions are produced; and  
at the same time drive torque is set in accordance with a value which is predefined by the driver and which can be derived from the activation of the accelerator pedal.

51. (Previously presented) The method as claimed in Claim 30, wherein braking interventions are carried out at the front wheels as a function of one of a value of sensed yaw moment which acts in the vehicle and a value of the sensed yaw acceleration.

52. (Previously presented) The method as claimed in Claim 30, wherein at least a yaw angle rate of the towing vehicle is determined and evaluated as a dynamic movement input variable.

53. (Previously presented) The method as claimed in Claim 30, wherein vehicle speed, yaw angle rate and steering angle are evaluated to determine whether a rolling movement is occurring.

54. (Previously presented) The method as claimed in Claim 53, wherein a rolling movement is occurring if the yaw angle rate exhibits an oscillating behavior in an operating state of the vehicle combination in which the vehicle speed is higher than an associated threshold value, even though the driver is not making any steering interventions.

55. (Previously presented) The method as claimed in Claim 30, wherein the presence of a rolling movement of the vehicle combination is detected as a function of a deviation variable which includes a deviation between actual value of the yaw angle rate and an associated setpoint value.

56. (Previously presented) A device for stabilizing a vehicle combination comprising a trailer and a towing vehicle that has front wheels and rear wheels, said device comprising:

means for determining and evaluating at least one dynamic movement input variable;

means for implementing at least braking interventions at the front wheels of the towing to stabilize a dynamic movement state of the vehicle combination when a rolling movement of the vehicle combination is detected upon evaluating the at least one dynamic moment input variable;

wherein a yaw moment that counteracts the rolling movement of the vehicle combination is produced by the braking interventions at the front wheels of the towing vehicle;



wherein braking interventions for the rear wheels of the towing vehicle that effect essentially constant braking at the rear wheels are additionally permitted only when a predefined operating state of the vehicle combination is present.